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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/639,444

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Benad Goldwasser

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11/24/2006

HOFFMAN WASSON & GITLER, P.C
CRYSTAL CENTER 2, SUITE 522
2461 SOUTH CLARK STREET
ARLINGTON, VA 22202-3843

EXAMINER

LIU, LIN

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/639,444

Applicant(s)

GOLDWASSER, BENAD

Examiner

Lin Liu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 13, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on August 13, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/17/2003.
09/09/2004, 11/04/2004.

DETAILED ACTION

1. The information disclosure statement (I.D.S) filed on July 18 2006, June 28 2006, June 02 2006, January 04 2006, December 12 2005, October 25 2005, August 03 2005 and February 01 2005 are considered.

Specification Objection

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims **1-3 and 5-13** are rejected under 35 U.S.C 102 (e) as being anticipated by **Iddan (Patent No.: 6,958,034)**.

Consider **claim 1**, Iddan teaches an ingestible imaging system comprising: an ingestible (col. 2 lines 47-49) housing comprising an imaging sensor (fig. 2 imaging system 40, and lines 65-67) and a motor-driven (fig. 2 motor 20) propulsion device (col.

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3, lines 7-8, noted from the figure 2 that the propulsion device is the rotatable propeller unit 24A).

Consider **claim 2**, Iddan teaches an ingestible imaging system according to claim 1, wherein said motor-driven propulsion device comprises a motor (fig. 2 motor 20) and a propeller (fig. 2 rotatable propeller unit 24A and col. 3, lines 7-8).

Consider **claim 3**, Iddan teaches that the ingestible imaging system according to claim 1, wherein said ingestible housing further comprises a steering device (col. 9 lines 49-52, noted the Rudders can be used to aid in directing the device, and col. 14 lines 12-15, noted that the self propelled device is steerable by a controllably propelling device).

Consider **claim 5**, Iddan teaches an ingestible imaging system according to claim 3, further comprising a processor (fig. 2 control unit 28, col. 4 line 51, noted that the control unit can be a microprocessor; and fig. 1B data processor 414) communication (col. 4 lines 47-48 and fig. 2, noted that there is a two way arrow between the control unit 28 and the motor 20, this clearly shows that there's a communication between the control unit and motor) with at least one of said motor-driven propulsion device (col. 3 lines 40-42, noted that the motor 20 operates the propeller 24A) and said steering device, which controls operation (col. 4 lines 48-49) of at least one of said motor-driven propulsion device (rotatable propeller unit 24A) and said steering device.

Consider **claim 6**, Iddan teaches that the ingestible imaging system according to claim 5, wherein said processor (noted that the control unit 28 is a microprocessor) is

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internal (fig. 2, noted that the control unit 28 is built-in to the capsule) to said ingestible housing.

Consider **claim 7**, Iddan teaches that the ingestible imaging system according to claim 5, wherein said processor (data processor 414) is external (col. 5 lines 37-40, noted that the data processor is worn outside of the patient's body and fig. 1B, noted that the data processor is not located in the ingestible capsule but it is rather located outside of patient's body and it is connected to a personal computer) to said ingestible housing.

Consider **claim 8**, Iddan teaches that the ingestible imaging system according to claim 3, further comprising a processor (control unit 28) in communication (col. 6 lines 29-35, noted that the control unit is connected to and controls the operation of the imaging system 40) and with said imaging sensor (imaging system 40).

Consider **claim 9**, Iddan teaches that the ingestible imaging system according to claim 1, wherein said ingestible housing further comprises a transmitter (fig. 2 transceiver 26, and col. 4 lines 53-55).

Consider **claim 10**, Iddan teaches that the ingestible imaging system according to claim 1, wherein said ingestible housing further comprises a receiver (col. 4 lines 53-57 and col. 6 lines 40-43, noted that the transceiver 26 is also capable of receiving command data from an external device, thus it is inherently a receiver).

Consider **claim 11**, Iddan teaches that the ingestible imaging system according to claim 1, further comprising a guard (fig. 2, stator unit 20A and mounting bracket 24D) adapted to prevent said motor-driven propulsion device (rotatable propeller unit 24A)

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from contacting tissue (col. 3 lines 16-19, noted that the configuration of the hollow bracket prevents the propeller from damaging the lumen wall).

Consider **claim 12**, Iddan teaches that the ingestible imaging system according to claim 1, wherein said imaging sensor (imaging system 40) comprises at least one of a CCD camera (col. 6 lines 2-4), an illumination device, a vision device, an ultrasound sensor, and an x-ray emitter.

Consider **claim 13**, Iddan teaches that the ingestible imaging system according to claim 1, wherein said ingestible housing comprises a magnetic device (fig. 2 blades 24B and rotatable axle 24C and col. 3 lines 22-24 and lines 35-36, noted that the blades and the rotatable axle are magnetic materials).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Iddan (Patent No.: 6,958,034)** in view of **Alfano et al. (Pat. No: 6,240,312 B1)**.

With respect to **claim 4**, Iddan teaches all the claimed limitation with the exception that he does not explicitly teach the ingestible imaging system according to claim 1, wherein said motor-driven propulsion device is adapted to propel said ingestible housing in a random motion path.

In the same field of endeavor, Alfano teaches a wireless remote-controllable micro-scale device for use in vivo medical diagnosis and/or treatment. He discloses that the ingestible device is adapted to propel in a random motion path (col. 4 lines 4-8, noted that Alfano teaches that this wireless micro-scale device can be inserted from mouth and it has complete freedom to move about inside a patient's body, this clearly shows that his device is capable to propel randomly in patient's body).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the feature of moving randomly in patient's body as taught by Alfano with self propelled device in Iddan, in order to roam freely in patient's body without causing any damages to the walls and obtain the precise information of the walls regardless of the body internal loops.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim discloses a micro-robot for colonoscope with motor

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locomotion for obtaining information of the interior of the colon in patent no.: US 6,648,814 B2. Shan discloses a pass-through duodenal enteroscopic device in utilizing the natural contraction wave of the small intestine to propel through the intestine in patent no.: US 5,984,860. Mizuno discloses a capsule type endoscope for obtaining images of an interior of the living body in patent no.: US 6,939,292 B2. Yaron discloses a swallowable capsule for obtaining stereoscopic images in patient's body for medical use in patent no.: US 7,116,352 B2. Iddan discloses an in vivo video camera system and an autonomous video endoscope, which is capable of passing through the entire digestive tract in patent no.: US 5,604,531. Ziegler discloses a self-propellable endoscopic apparatus and method to obtain a view of the interior of a patient's body in publication no.: US 2006/0089533 A1.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Liu whose telephone number is (571) 270-1447.


The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

L.Liu
10/25/06



PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER